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ABSTRACT

Some research in social psychology has examined the effect of social influence on group processes. To examine the conditions under which individuals cooperate to function as a group and the effects of this group formation on the cohesiveness, communication, and morale of group members, two experiments were conducted. A group of three male subjects and a group of three female subjects lived for 10 consecutive days in programmed laboratory environments. The subjects could earn money by performing tasks and could put the earnings in an individual or group account, with incentives provided for shifting to the group account. Results showed that complete shifts to cooperative group effort occurred under some bonus conditions, accompanied by increased socialization, communication, and morale. Females were more accepting of distributing rewards according to an equality theory, while males strongly preferred equitable distribution of rewards. The findings suggest a new methodological approach to the study of groups. (JAC)

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GROUP FORMATION, COHESIVENESS, AND MORALE IN A RESIDENTIAL LABORATORY ENVIRONMENT

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Paper presented at the Annual Meeting of the Eastern Psychological Association, Baltimore, MD, April 13-15, 1982.

(1) Group formation, cohesiveness, and morale in a residential laboratory environment.

(2) Social Psychology, Group Process, Social Influence.

(3) Major Purpose

The major purpose of these experiments was to examine the conditions under which individuals cooperate to function as a group and the effects of this group formation process upon the cohesiveness, communication and morale of group members.

(4) Subjects

Groups of male and female volunteers recruited from local student communities served as experimental subjects in these studies. All subjects received psychometric test evaluation and interview assessment as part of the screening procedure for acceptance as participants in the experiments. Each subject was fully informed about the research setting and procedures, which included several daily briefing sessions in the programmed environment preceding the start of an experiment to insure familiarization with the operational features of the laboratory. Following these briefings, but before beginning an experiment, a written informed consent agreement was signed and exchanged between the subjects and experimenters. In addition, a manual of instructions detailing the experimental procedures and environmental resources was provided each subject for guidance throughout the experiment. The subjects in experiment I were three males ages 26, 27, and 31. The subjects in experiment II were three females ages 25, 29, and 35.

(5) Procedure

In the first experiment, three male subjects lived for 10 consecutive days (Day 1 - adaptation) in a continuously programmed laboratory environment. During their residence (Days 2-9), the subjects could earn money by performing on either of two work tasks that were concurrently available. A complex work

task was represented by the Alluisi Performance Battery (Morgan, B.B. and Alluisi, E.A., 1972; Emurian, H.H., 1978), while pulling a lever represented a much simpler type of work performance. Monies earned on these tasks were deposited in either of two bank accounts: an individual account or a group account. Subjects, prior to work episodes, indicated for which bank account they would be working. At the end of the experiment, subjects received all the money in their individual account plus 1/3 of the money in the group account (the other two subjects received the remaining 2/3). Since previous research had indicated a strong preference for earning via the individual bank account, the purpose of this experiment was to determine the effects of incentives for shifting this preference to the group bank account. To this end, bonuses were offered for earnings contributed to the group bank account. These bonuses ranged from 10% (i.e., $110 given for $100 earned in the group bank account) to 60%. In addition to individual vs group choices, the dependent measures taken included socialization (time spent in a social area), communication (time spent in diadic and triadic phone conversation) and morale (interpersonal ratings). Experiment II was similar to Experiment I with the single exception that the subjects in Experiment II were three females.

(6) Results or Findings

Figure 1 shows the percentage distribution of earnings between individual and group accounts for each of the three subjects over the course of the nine-day experiment. It can be seen that as the bonus for group participation increased (and on day 6 the total daily earning limit) the group responded by shifting to 100% group participation. This process developed progressively with the initial shift seen in the more routine work (i.e. lever pulling) for which individual contributions to the group were more easily regulated and specified. Work involving the more complex behaviors (i.e., behaviors involved in the Alluisi task) which showed greater intersubject performance differences shifted to group participation 18-24 hours later. The slightly higher daily

earning limit ($60 vs $50) on days 6 and 7 is confounding and thus necessitate interpretive caution and more research to separate these potentially interacting factors (i.e. daily limit and group bonus). Nonetheless, a potent group formation did transpire. The cohesiveness of the group is shown on day 9 when incentive (bonus) parameters are returned to those of days 2 and 3. Now, the three participants continue to function as a group as contrasted to days 2 and 3 when they persisted in separate and individualistic work. Thus once established, the group tends to remain constituted, despite conditions which initially were insufficient to cause group formation.

Figure 2 shows the use of the social area by the group as individual, dyads, or triads. These data reveal that as group work modes developed, these were accompanied by increases in group socialization and especially by triadic social episodes. Although not under direct programmatic influence, the increase in group socialization appears to be a byproduct which may in turn contribute to group morale manifest in the interpersonal ratings shown in Figure 3. Concommitant with increased group work and socialization are a gradual shift in the subjective rating each subject expressed with regard to his colleagues.

The fourth set of data consistent with overall pattern of positive group formation is the record of communication between the subjects over the course of the 9 day experiment. As can be seen in Figure 4 as the group formed, communications increased, especially, as in the case of social episodes, in triadic communications.

The results of Experiment II which involved three women matched those of the men in Experiment I with one important difference. The women showed the shift to group cooperation with half the incentive amount required for the men.

(7) Implications and Conclusions

The results of these experiments suggest the following conclusions: 1) Complete shifts to cooperative group effort did occur under some bonus conditions. 2) Once established, formed groups tended to resist change back to individual modes of earnings (i.e., groups were maintained in the presence of parameters which initially did not result in group formation). 3) Group cooperation may help to improve the work performance of the poorer performers. 4) Shifts to group organizational structures are accompanied by increased socialization, communications, and morale as compared to these social expressions during individualized earning conditions. 5) These results also confirm previous findings which suggest that females are more accepting of distributing rewards according to equality theory as compared to males who tend to more strongly prefer equitable distribution of rewards (Kahn et al., 1980).

This laboratory research suggests a new methodological approach to the study of groups and reveals that the direct contingency arrangement fostering group participation results in several indices of social behavior representative of authentic group formation.

(8) References:

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Morgan, B.B. and Alluisi, E.A. Synthetic work: Methodology for the assessment of human performance. Perceptual and Motor Skills, 1972, 35, 835-845.

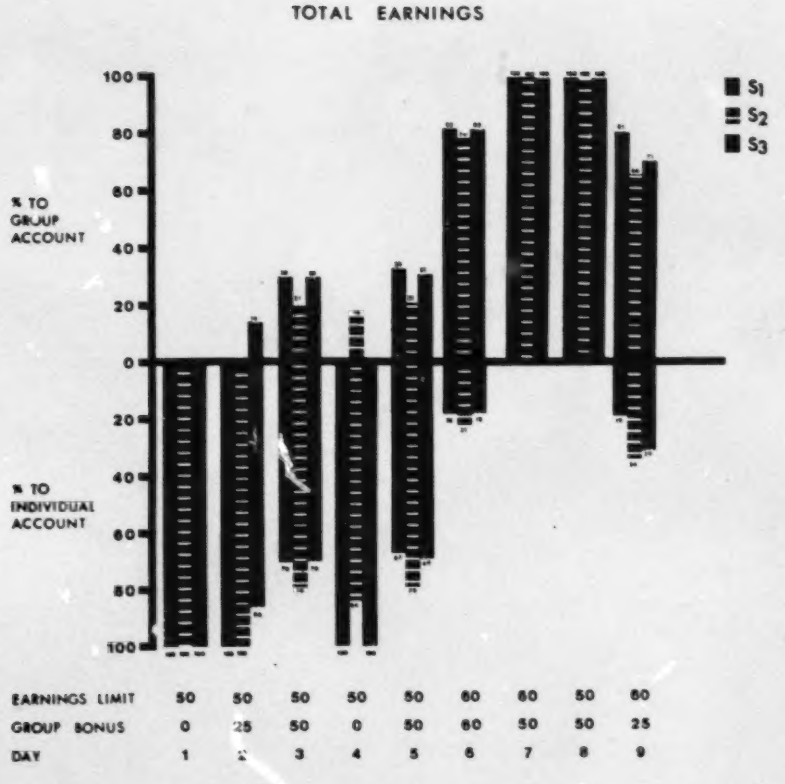
TOTAL EARNINGS
S1
S2
S3
% TO GROUP ACCOUNT
% TO INDIVIDUAL ACCOUNT
100
80
60
40
20
0
20
40
60
80
100
EARNINGS LIMIT 50 50 50 50 50 60 60 50 60
GROUP BONUS 0 25 50 0 50 60 50 50 25
DAY 1 2 3 4 5 6 7 8 9

FIGURE 1

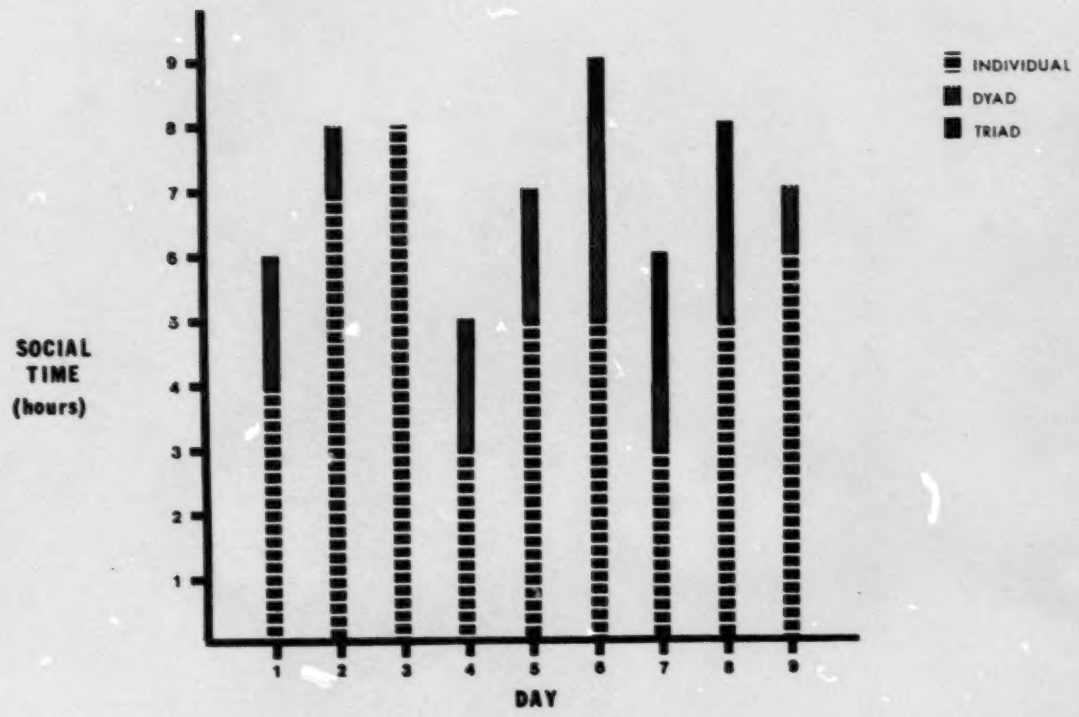

FIGURE 2

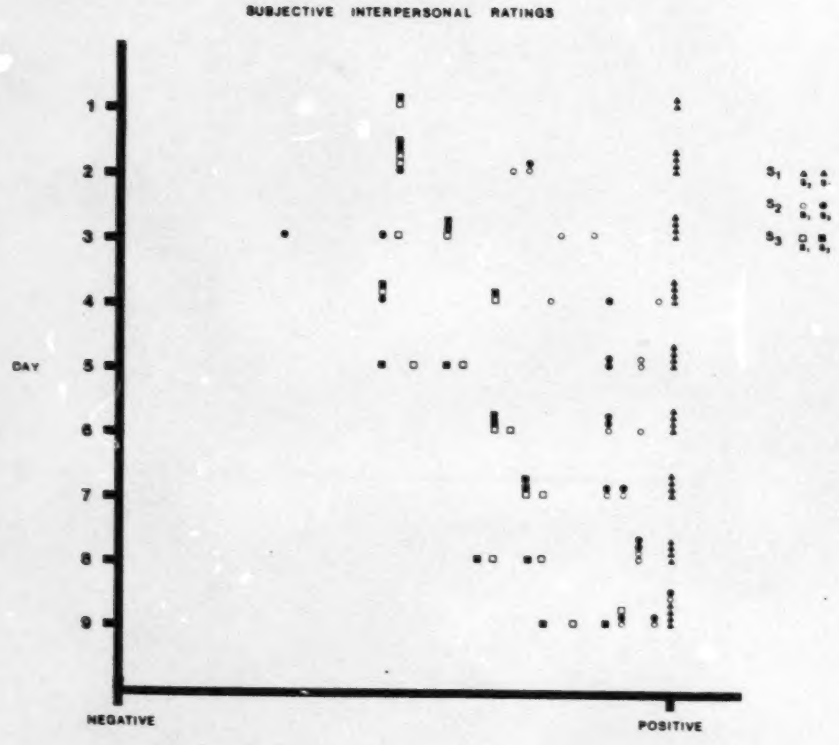
SUBJECTIVE INTERPERSONAL RATINGS
DAY
1
2
3
4
5
6
7
8
9
NEGATIVE
POSITIVE
S1
S2
S3

FIGURE 3

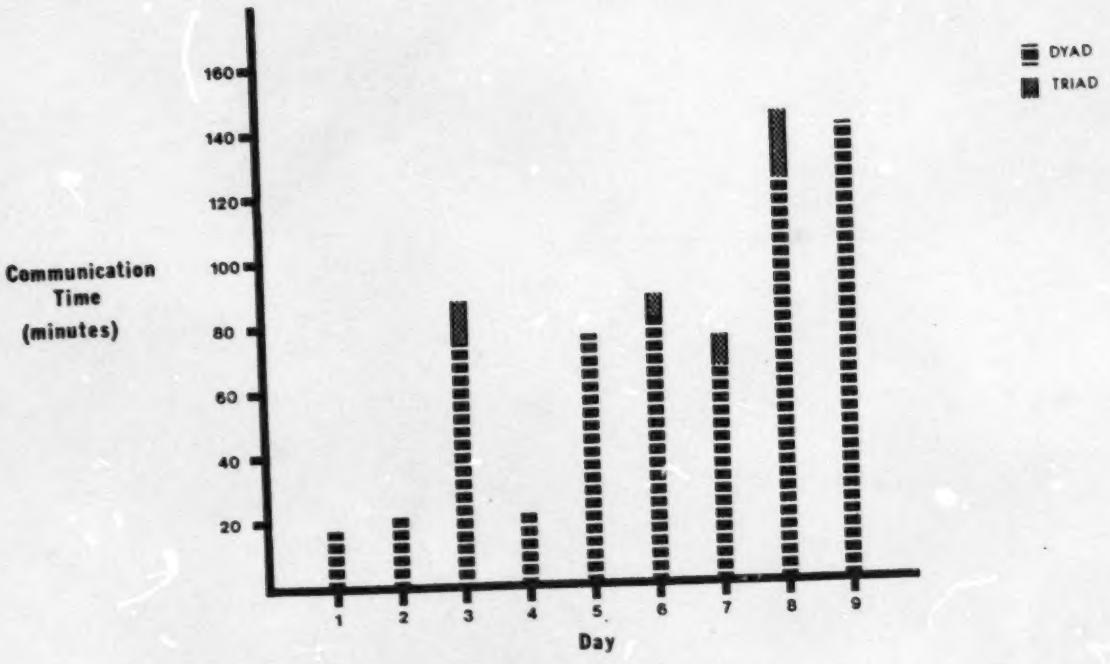
DYAD
TRIAD
Communication Time (minutes)
160
140
120
100
80
60
40
20
1
2
3
4
5
6
7
8
9
Day

FIGURE 4